IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
	)	
Michael A. DEAN	)	Group Art Unit: 2135
	)	
Application No.: 09/594,100	)	Examiner: LEYNNA A. HA
	)	
Filed: June 14, 2000	)	
	)	
For: METHOD AND APPARATUS FOR DYNAMIC MAPPING	)	

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an Appeal Brief under Rule 41.37 appealing the non-final rejection dated August 24, 2006 made by the Examiner in this RCE application.

The application was initially non-finally rejected on March 30, 2004, thereafter finally-rejected on January 21, 2005, thereafter appealed which resulted in re-opening prosecution, thereafter again non-finally rejected on September 22, 2005, thereafter again finally-rejected on March 9, 2006, and thereafter subjected to continued-examination as the instant RCE application. The instant RCE application was non-finally rejected on August 24, 2006, is the last office action in this case (hereinafter "Last Office Action"), and comprises the basis for the instant appeal.

Each of the topics required by Rule 41.37 is presented herewith and labeled in accordance therewith.

TABLE OF CONTENTS

I. REAL PARTY IN INTEREST

The real parties in interest are: BBNT Solutions LLC, joint assignee, a limited liability company organized and existing under the laws of the state of Delaware, and having a principal business address of 10 Moulton Street, Cambridge, Massachusetts 02138; Genuity, Inc., joint assignee, a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a principal business address at 3 Van de Graaff Drive, Burlington, Massachusetts 01803; and Verizon Corporate Services Group Inc., joint assignee, a corporation organized and existing under the laws of the state of New York, and having a principal business address of One Verizon Way, Basking Ridge, New Jersey, 07920.

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to the present application of which the Appellant is aware. However, the present application was previously appealed by way of an appeal brief filed on June 21, 2005 which precipitated a re-opening of prosecution by way of the office action mailed on September 22, 2005.

III. STATUS OF CLAIMS

Claims 1-33 are currently pending in the application and all stand rejected. Appellant appeals from the August 24, 2006 non-final rejection of claims 1-33, the claims being presented in the Claims Appendix.

IV. STATUS OF AMENDMENTS

Subsequent to the Last Office Action, the non-final office action of August 24, 2006, Appellant has not filed any response other than the filing of a notice of appeal in connection with this instant appeal brief. Accordingly, there are no outstanding amendments to the claims, and claims 1-33 stand rejected for purposes of this appeal.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Referring to Fig. 1 of the instant application, Appellant's claimed subject matter includes system and method for securing information transmitted between a client (110) and a server (150) in a client-server network (100). A client-side device (120) receives data from client 110 to be transmitted to server 150 and modifies destination address and port information. A dynamic address translation device (140) at the server side receives the modified destination address and port information, translates this information back to the real destination address and port information of server 150, and forwards the data to the server. In reverse operation, when data packets are transmitted from server 150 to client 110, the reverse process may be used. (Figure 1; Appellant's specification, page 3, line 29 - page 4, line 5; page 15, lines 24-25).

More specifically, two different network devices (address translators 120 and 140) are communicatively coupled through a network (160) such as the Internet, as shown in Fig. 1. When a client (110) generates a data packet intended for a server (150), such packet therefore including the server's address as destination address, that packet is intercepted by the client side address translator (120). Address translator 120 maps the destination information from the server's address and port to another network device's address and port. This other address and port belongs to the server-side address translator (140). Client-side address translator 120 then transmits the data packet with mapped destination address via network 160 (i.e., Internet, LAN, WAN, etc.) to server-side address translator 140 which receives the packet and translates the mapped destination

information back to the original (server) destination information. Address translator 140 then transmits the data packet to server 150 via another network 170 (the Internet, a LAN, a WAN, intranet, etc.). (Figure 1; Appellant's specification, page 4, line 7 - page 5, line 23).

When the server 150 replies to the data packet request received from client 110, the process reverses itself, with address translator 140 intercepting the reply from server 150 via network 170, mapping the destination address from that of client 110 to that of address translator 120 and sending the reply via the network (160) to address translator 120. Then address translator 120 translates the address in the reply to that of the client (110) and forwards the reply to the client. (Figure 1; Appellant's specification, page 4, line 7 - page 5, line23; page 15, line 22 - page 16, line 8).

In this manner, at least the client-to-server true-destination address is kept secret while the data packet request is transmitted through the network 160 from client to server, and the server-to-client true-destination address is kept secret while the data packet reply is transmitted back through the network 160 from server to client. Therefore, any would-be hacker or adversary using packet sniffers or other devices to obtain confidential destination address information from these packets while they are being transmitted through a network 160 such as the Internet, shall be thwarted. (Appellant's specification, at least page 5, lines 15-18; page 10, lines 17-19).

Pursuant to receipt of the "Notification of Non-Compliant Appeal Brief" mail-dated 3/15/2007, requesting a mapping of the independent claims, referring to the specification by page and line number and to the drawings, the following mapping is

presented where the respective claim elements are depicted and/or described in at least the Figs. and/or sections mapped thereto.

CLAIMS 1, 11, 16, 21, 26, 31 and 32:

1. In a network including at least one server (150, Fig. 1; pg 5, lines 19-23) for communicating with at least one client (110, Fig. 1; page 4, lines 11-20), a method comprising:

receiving in a first address translator (120, Figs. 1 & 2; pg. 4, line 21 - pg. 5, line 4; Fig. 2; pg. 5, line 25 - pg. 7, line 9) a data packet from a client (110, Fig. 1; pg. 4, lines 11-20), the data packet including a first destination address;

changing the first destination address to a second destination address in the first address translator (pg. 4, line 21 - pg. 5, line 4; 420, Fig. 4; pg. 8, line 28 - pg. 9, line 28);

transmitting (pg. 5, lines 4-8) the data packet with the second destination address from the first address translator to a second address translator (Fig. 3; pg. 7, line 11 - pg. 8, line 16) via the network;

receiving in the second address translator (140, Fig. 1; pg 5, lines 9 -11; 440, Fig. 4; pg. 9, lines 30-32) the data packet with the second destination address transmitted via the network;

translating (pg. 5, lines 11-12; 440, Fig. 4; pg. 10, lines 11-14) the second destination address back to the first destination address in the second address translator; and

forwarding the data packet from the second address translator to the server using the first destination address (pg. 5, lines 12-15).

11. A system for mapping destination information, comprising:

a memory (230, 240, 250, Fig. 2; pg. 6, lines 27-29) configured to store a mapping algorithm; and

a processor (220, Fig. 2) configured to:

receive in a first address translator (120, Figs. 1 & 2; pg. 4, line 21 - pg. 5, line 4; Fig. 2; pg. 5, line 25 - pg. 7, line 9; 420, Fig. 4; pg. 8, line 28 - pg. 9, line 2) a data packet including a first destination address, the first destination address representing a real destination address,

change the first destination address to a second destination address in the first address translator using the mapping algorithm (420, Fig. 4; pg. 8, line 28 - pg. 9, line 28), and

transmit (430, Fig. 4, pg. 9, lines 29-30) the data packet with the second destination address to a second address translator (Fig. 3; pg. 7, line 11 - pg. 8, line 16).

16. A computer-readable medium (230, 240, 250, Fig. 2) having stored thereon a plurality of sequences of instructions, said instructions including sequences of instructions which, when executed by a processor (220, Fig. 2), cause said processor to perform the steps of:

receiving in a first address translator a data packet including a first destination address, the first destination address representing a real destination address (120, Figs. 1 & 2; pg. 4, line 21 - pg. 5, line 4; Fig. 2; pg. 5, line 25 - pg. 7, line 9; 420, Fig. 4; pg. 8, line 28 - pg. 9, line 2)

changing the first destination address to a second destination address in the first address translator using a mapping algorithm (420, Fig. 4; pg. 8, line 28 - pg. 9, line 28); and

transmitting (430, Fig. 4, pg. 9, lines 29-30) the data packet with the second destination address from the first address translator to a second address translator (Fig. 3; pg. 7, line 11 - pg. 8, line 16).

21. A system for mapping destination information, comprising:

a memory (330, Fig. 3) configured to store a translation algorithm; and

a processor (320, Fig. 3) configured to:

receive in a second address translator from a first address translator a data packet including a first destination address, the first destination address representing mapped destination address information (440, Fig. 4; pg. 9, lines 30-32),

translate in the second address translator the first destination address to a second destination address using the translation algorithm, the second destination address representing a real destination address (440, Fig. 4; pg 9, line 32 - pg. 10, line 14), and

forward the data packet from the second address translator using the second destination address (450, Fig. 4; pg 10, lines 14-16).

26. A computer-readable medium (330, Fig. 3) having stored thereon a plurality of sequences of instructions, said instructions including sequences of instructions which, when executed by a processor (320, Fig. 3), cause said processor to perform the steps of:

receiving from a first address translator into a second address translator a data packet including a first destination address, the first destination address representing a mapped destination address (440, Fig. 4; pg. 9, lines 30-32);

translating the first destination address to a second destination address in the second address translator using a translation algorithm, the second destination address representing a real destination address (440, Fig. 4; pg 9, line 32 - pg. 10, line 14); and

forwarding the data packet from the second address translator using the second destination address (450, Fig. 4; pg 10, lines 14-16).

31. A system for mapping and translating destination information in a network (100, Fig. 1) including at least one server (150, Fig. 1) for communicating with a plurality of client workstations (110, Fig. 1), comprising:

means for receiving from one of the client workstations a data packet including a first destination address (120, Figs. 1 & 2; pg. 4, line 21 - pg. 5, line 4; Fig. 2; pg. 5, line 25 - pg. 7, line 9);

means for changing the first destination address to a second destination address in a first address translator (pg. 4, line 21 - pg. 5, line 4; 420, Fig. 4; pg. 8, line 28 - pg. 9, line 28);

means for transmitting (pg. 5, lines 4-8) the data packet with the second destination address from the first address translator to a second address translator (Fig. 3; pg. 7, line 11 - pg. 8, line 16) via the network;

means for receiving in the second address translator (140, Fig. 1; pg 5, lines 9 -11; 440, Fig. 4; pg. 9, lines 30-32) the data packet with the second destination address transmitted via the network;

means for translating the second destination address back to the first destination address in the second address translator (pg. 5, lines 11-12; 440, Fig. 4; pg. 10, lines 11-14); and

means for forwarding the data packet from the second address translator to the server using the first destination address (pg. 5, lines 12-15).

32. In a network including at least one client and at least one server, a system comprising:

a first address translator (120, Figs. 1 & 2) configured to:

receive a data packet from a client, the data packet including a first destination address wherein the first destination address represents a real destination address (120, Figs. 1 & 2; 420, Fig. 4; pg. 8, line 28 - pg. 9, line 2),

change the first destination address to a second destination address (420, Fig. 4; pg. 8, line 28 - pg. 9, line 28), and

transmit the data packet with the second destination address via the network to a second address translator (430, Fig. 4, pg. 9, lines 29-30); and

the second address translator (140, Figs. 1 & 3) configured to:

receive the data packet with the second destination address transmitted via the network (140, Fig. 1; pg. 5, lines 9-11; 440, Fig. 4; pg. 9, lines 30-32),

translate the second destination address back to the first destination address (pg. 5, lines 11-12; 440, Fig. 4; pg 9, line 32 - pg. 10, line 14), and

forward the data packet to the server using the first destination address (pg. 5, lines 12-15; 450, Fig. 4; pg 10, lines 14-16).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

In the Last Office Action, the following rejections were made:

Claims 1-33 were rejected under 35 U.S.C. § 102 (e) as being anticipated by U.S. Patent No. 6,415,329 to Gelman et al., (hereinafter "Gelman"). This is the sole ground of rejection.

Therefore, the sole issue presented in this appeal is whether or not claims 1-33 are anticipated by Gelman.

A refinement of that issue is whether or not the Examiner is permitted to overlook portions of Gelman which teach that its preferred embodiment cannot operate in accordance with certain limitations recited in each of Appellant's claims on appeal while, at the same time, issue the Last Office Action which rejects these claims under 35 U.S.C. § 102 (e) as being anticipated by Gelman.

The independent claims on appeal are claims 1, 11, 16, 21, 26, 31 and 32. Appellant's dependent claims shall stand or fall with their respective independent claims.

VII. ARGUMENT

Appellant shall first present an explanation of Gelman's disclosure. Then, Appellant shall show how each of its independent claims is not read-on by that disclosure. Finally, Appellant shall discuss the Last Office Action and explain how the Examiner has overlooked essential teachings of Gelman in pursuit of her decision to reject Appellant's claims on appeal. The independent claims on appeal are claims 1, 11, 16, 21, 26, 31 and 32. Appellant's dependent claims shall stand or fall with their respective independent claims.

A. The Gelman Disclosure

Gelman discloses a method of communicating over a satellite or other high delay-bandwidth link. (Abstract) In Figs. 1 and 2 of Gelman, source node 10 can send a packet to destination node 18 by way of source gateway 12, wireless link 22 including satellite path 14, and destination gateway 16. Source transmission segment 20 and destination transmission segment 24 use transmission control protocol/internet protocol (TCP/IP) while the interconnecting wireless link transmission segment 22 uses wireless link protocol (WLP).

"A source node 10 originates the TCP connection by transmitting a TCP SYN packet to the destination node 18. The TCP packet travels over the source segment 20 to a source gateway 12 which intercepts the packet and converts it to a second, non-TCP protocol. The packet is then transmitted across the wireless link 22 in this second protocol, and is received by destination gateway 16. The destination gateway converts

the packet back to TCP and forwards the packet to the destination node 18 over the destination segment 24. Once the connection is established, packets travel back and forth from source to destination or from destination to source, and are translated by the gateways 12, 16 for transmission over the wireless link 22." (Gelman, col. 7, lines 14-26)

"Typically, the source segment 20 and destination segment 24 use terrestrial connections and operate using unmodified TCP/IP protocols. However, the gateway to wireless link 22 uses a special wireless link protocol (WLP) which compensates for the physical characteristics of the satellite path 14. Software at each gateway 12, 16 converts packets from TCP to WLP as they enter [from either direction] the wireless gateway-to-gateway connection 22, and converts them back to TCP as they exit the connection 22." (Gelman, column 7, lines 39-47, Emphasis added.) Note that because Gelman "performs true protocol conversion, no TCP or IP headers are transmitted on the wireless link." (Gelman, column 8, lines 17-19) Accordingly, Gelman does not use TCP/IP headers in its wireless transmission and uses a different protocol, WLP, in its wireless transmission.

In Gelman, column 22, a virtual circuit (VC) table, TABLE 5, is presented. "An X [in the table] indicates that the message contains a particular field." (Gelman, column 22, lines 38-39) As can be seen from this table "local address" and "remote address" are the only address-related entries in the table and are X'd *only* in the CONNECT VC message column. "CONNECT messages are sent by a client VC after the start of a TCP connection by a client. All of the information in a CONNECT message is copied directly from the client VC that creates it. Upon receipt of a CONNECT message, a server gateway creates a server VC which attempts to connect to the server specified as the remote host in the message." (Gelman, column 22, lines 60-65) The address information

is included in the CONNECT message, where it is needed to make the connection. As can be seen in the left-hand column of TABLE 5, "Data length" and "Data" are the only data-related entries in the table and they are not X'd in the CONNECT column, because no data is sent *with* the address information in the CONNECT message in WLP.

Rather, "Data length" and "Data" are X'd in the DATA message column, which represents the data message (i.e., data packet) sent subsequent to sending the CONNECT message. In fact, the DATA message is sent after the CONN_ACK message which is sent after the CONN message: "CONN_ACK messages [connect acknowledged] are sent by a server VC after receipt of a CONNECT message and successful connection to the server specified in the CONNECT message." (Gelman, column 22, line 66-column 23, line 1) Data messages are sent after that: "DATA messages can be sent on a VC *after* the VCs have sent or received a CONN_ACK message." (col. 23, lines 18-19, emphasis added). Therefore, data messages are transmitted after connect-acknowledgment messages which are transmitted after the initiating connect message which contains the address information.

Gelman translates a packet's real destination address to the address of the source gateway (col. 2, lines 41-42). Gelman then separates the data from the address in that packet at the source gateway, inserts the data into a data packet (the "DATA message") and inserts the real destination address into an address packet (the "CONNECT message"). (*See* col. 22, line 25 - col. 23, line 56) Thereafter, Gelman wirelessly and separately transmits at least those two packets over *virtual circuits* to the destination gateway. The virtual circuits have sending and receiving connection numbers, requiring no addressing information (col. 25, lines 60-63). There are no TCP or IP headers, which

normally include address information, transmitted on the wireless link (col. 8, lines 18-19). From the destination gateway, the data packet is transmitted to the real destination address which it had received in the separate CONNECT message packet.

Recapitulating, the Gelman patent discloses use of WLP to connect a first (transmitting) TCP/IP protocol with a second (receiving) TCP/IP protocol across a wireless, satellite link, and shows no other way of implementing this communication path from source node 10 to destination node 18. Gelman sends data packets from the transmitting TCP/IP side to the receiving TCP/IP side in a DATA message well after sending the address information in a CONNECT message and, therefore, without the address information included in those data packets.

Appellant's position that Gelman's data packets do not include address information is reinforced by Gelman's claims, which are part of Gelman's disclosure. For example, consider:

> "a source gateway application which receives the forwarded packets, establishes a connection over the link, using a second protocol, with a destination gateway application, **forwards packet addressing information to the destination gateway application**, and further **forwards the packets, without the packet addressing information**, in the second protocol over the link" (Gelman, *claim 19*, column 34, lines 8-13; Emphasis added.)

> "source and destination addresses **having been removed from the packets**" (Gelman, *claim 20*, column 34, line 45-46; Emphasis added.)

> "on the second communications session, forwarding packets from the first gateway to the second gateway, and from the second gateway to the first gateway, using the second protocol, **the packets having had addressing information removed**" (Gelman, *claim 21*, column 35, lines 22-26; and *claim 49*, column 37, lines 45-49; Emphasis added.)

It is clear from the above Gelman claim examples, which are derived from four of Gelman's five independent claims, that Gelman's claims are referring to the forwarding of data packets *without* the packet addressing information included. Independent claim 1 also recites substantially the same limitation, but in less-clear language. In other words, Gelman data packets have had their addressing information removed *before* forwarding. This address-removing activity, as expressed in Gelman's claims, was pointed-out to the Examiner, at least in arguments in the Remarks filed with Appellant's amendment on June 6, 2006 (page 14 thereof), but they have been ignored by the Examiner. Indeed, no comments relative to these arguments based on Gelman's claims appear in the Last Office Action. Silence suggests acquiescence.

B. Appellant's Independent Claim 1 and its Dependencies (Claims 2-10)

Independent claim 1 recites *interalia*:

> "receiving in a first address translator a data packet from a client, the data packet including a first destination address; changing the first destination address to a second destination address in the first address translator; transmitting the **data packet with the second destination address** from the first address translator to a second address translator via the network; receiving in the second address translator the **data packet with the second destination address** transmitted via the network; translating the second destination address back to the first destination address in the second address translator; and forwarding the data packet from the second address translator to the server using the first destination address". (Emphasis added.)

It is clear from claim 1 above that Appellant's data packet is transmitted "with the second destination address" from the first address translator to a second address translator via the network. It is also clear from claim 1 above that Appellant's data packet is received "with the second destination address" in the second address translator, transmitted via the network. In other words, Appellant's data packets include address

information. As explained above with respect to the disclosure of Gelman, its data packet does not contain address information. Its address information is sent in a packet (message) other than the packet in which its data is sent. Thus, Gelman does not disclose each and every element of claim 1.

MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In this case, Gelman does not teach each and every element of claim 1. Indeed, as shown above, Gelman does not teach multiple elements of claim 1 and, therefore, is deficient as a 35 U.S.C. §102(e) reference against claim 1. For the above reasons, the Honorable Board is respectfully requested to REVERSE the rejection in the Last Office Action and allow the claim.

The rejection of claims 2-10, each depending directly, or indirectly, from claim 1, should also be REVERSED, at least for reasons based on their respective dependencies from an allowable base claim.

C. Appellant's Independent Claim 11 and its Dependencies (Claims 12-15)

Independent claim 11 recites *interalia*:

> "a processor configured to: receive in a first address translator a data packet including a first destination address, the first destination address representing a real destination address, change the first destination address to a second destination address in the first address translator using the mapping algorithm, and **transmit the data packet with the second destination address** to a second address translator". (Emphasis added.)

It is clear from independent claim 11 above, that it recites the transmission of the data packet with the second destination address included. In other words, Appellant's data packets include address information. For the reasons given above with respect to the Gelman disclosure and to claim 1, Gelman does not disclose or suggest this limitation. As noted, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In this case, Gelman does not teach each and every element of claim 11 and, therefore, is deficient as a 35 U.S.C. §102(e) reference against claim 11. For the above reasons, the Honorable Board is respectfully requested to REVERSE the rejection in the Official Action and allow the claim.

The rejection of claims 12-15, each depending directly from claim 11, should also be REVERSED, at least for reasons based on their respective dependencies from an allowable base claim.

D. Appellant's Independent Claim 16 and its Dependencies (Claims 17-20)

Independent claim 16 recites:

> "A computer-readable medium having stored thereon a plurality of sequences of instructions, said instructions including sequences of instructions which, when executed by a processor, cause said processor to perform the steps of: receiving in a first address translator a data packet including a first destination address, the first destination address representing a real destination address; changing the first destination address to a second destination address in the first address translator using a mapping algorithm; and **transmitting the data packet with the second destination address** from the first address translator to a second address translator." (Emphasis added.)

It is clear from independent claim 16 above, that it recites transmitting the data packet with the second destination address included. In other words, Appellant's data packets include address information. For the reasons given above with respect to the Gelman disclosure and to claim 1, Gelman does not disclose or suggest this limitation. As noted, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In this case, Gelman does not teach each and every element of claim 16 and, therefore, is deficient as a 35 U.S.C. §102(e) reference against claim 16. For the above reasons, the Honorable Board is respectfully requested to REVERSE the rejection in the Official Action and allow the claim.

The rejection of claims 17-20, each depending directly from claim 16, should also be REVERSED, at least for reasons based on their respective dependencies from an allowable base claim.

E. Appellant's Independent Claim 21 and its Dependencies (Claims 22-25)

Independent claim 21 recites *interalia*:

> "a processor configured to: receive in a second address translator from a first address translator **a data packet including a first destination address**, the first destination address representing mapped destination address information, translate in the second address translator the first destination address to a second destination address using the translation algorithm, the second destination address representing a real destination address, and forward the data packet from the second address translator using the second destination address." (Emphasis added.)

It is clear from independent claim 21 above, that it recites receiving the data packet with the first destination address included. In other words, Appellant's data packets include address information. For the reasons given above with respect to the Gelman disclosure and to claim 1, Gelman does not disclose or suggest this limitation. As noted, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In this case, Gelman does not teach each and every element of claim 21 and, therefore, is deficient as a 35 U.S.C. §102(e) reference against claim 21. For the above reasons, the Honorable Board is respectfully requested to REVERSE the rejection in the Official Action and allow the claim.

The rejection of claims 22-25, each depending directly from claim 21, should also be REVERSED, at least for reasons based on their respective dependencies from an allowable base claim.

F. Appellant's Independent Claim 26 and its Dependencies (Claims 27-30)

Independent claim 26 recites *interalia*:

> "A computer-readable medium having stored thereon a plurality of sequences of instructions, said instructions including sequences of instructions which, when executed by a processor, cause said processor to perform the steps of: receiving from a first address translator into a second address translator **a data packet including a first destination address**, the first destination address representing a mapped destination address; translating the first destination address to a second destination address in the second address translator using a translation algorithm, the second destination address representing a real destination address; and forwarding the data packet from the second address translator using the second destination address." (Emphasis added.)

It is clear from independent claim 26 above, that it recites receiving the data packet with the first destination address included. In other words, Appellant's data packets include address information. For the reasons given above with respect to the Gelman disclosure and to claim 1, Gelman does not disclose or suggest this limitation. As noted, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In this case, Gelman does not teach each and every element of claim 26 and, therefore, is deficient as a 35 U.S.C. §102(e) reference against claim 26. For the above reasons, the Honorable Board is respectfully requested to REVERSE the rejection in the Official Action and allow the claim.

The rejection of claims 27-30, each depending directly from claim 26, should also be REVERSED, at least for reasons based on their respective dependencies from an allowable base claim.

G. Appellant's Independent Claim 31 (no dependencies)

Independent claim 31 recites:

> "A system for mapping and translating destination information in a network including at least one server for communicating with a plurality of client workstations, comprising: means for receiving from one of the client workstations **a data packet including a first destination address**; means for changing the first destination address to a second destination address in a first address translator; means for transmitting **the data packet with the second destination address** from the first address translator to a second address translator via the network; means for receiving in the second address translator

the data packet with the second destination address transmitted via the network; means for translating the second destination address back to the first destination address in the second address translator; and means for forwarding the data packet from the second address translator to the server using the first destination address." (Emphasis added.)

It is clear from independent claim 31 above, that it recites receiving the data packet with the first destination address included and transmitting the data packet with the second address included. In other words, Appellant's transmitted data packets include address information. For the reasons given above with respect to the Gelman disclosure and to claim 1, Gelman does not disclose or suggest this limitation. As noted, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In this case, Gelman does not teach each and every element of claim 31 and, therefore, is deficient as a 35 U.S.C. §102(e) reference against claim 31. For the above reasons, the Honorable Board is respectfully requested to REVERSE the rejection in the Official Action and allow the claim.

H. Appellant's Independent Claim 32 and its Dependency (Claim 33)

Independent claim 32 recites *interalia*:

"In a network including at least one client and at least one server, a system comprising: a first address translator configured to: receive a data packet from a client, **the data packet including a first destination address** wherein the first destination address represents a real destination address, change the first destination address to a second destination address, and **transmit the data packet with the second destination address** via the network to a second address translator; and a second address translator configured to: **receive the data packet with the second destination address** transmitted via the network,

translate the second destination address back to the first destination address, and forward the data packet to the server using the first destination address.

It is clear from independent claim 32 above, that it recites receiving the data packet with the first destination address included and transmitting the data packet with the second destination address included. In other words, Appellant's data packets include address information. For the reasons given above with respect to the Gelman disclosure and to claim 1, Gelman does not disclose or suggest this limitation. As noted, MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In this case, Gelman does not teach each and every element of claim 32 and, therefore, is deficient as a 35 U.S.C. §102(e) reference against claim 32. For the above reasons, the Honorable Board is respectfully requested to REVERSE the rejection in the Official Action and allow the claim.

The rejection of claim 33, depending directly from claim 32, should also be REVERSED, at least for reasons based on its respective dependency from an allowable base claim.

I. The Last Office Action (dated August 24, 2006):

Appellant shall first discuss the Last Office Action's application of Gelman against the above-emphasized limitations of independent claim 1, in detail, and shall discuss the Examiner's comments in the "Response to Arguments" with respect to claim 1, in detail. Each of the other independent claims has a limitation(s) similar to these

limitations. The Examiner cited the same or similar sections against these limitations in these other independent claims. Therefore, the other claims shall not be discussed in detail because the claim 1 discussion/argument applies to these other independent claims as well. But, the other cites for the other claims are presented hereinbelow as a convenient reference for the Honorable Board.

With respect to claim 1, in the Last Office Action, page 4, against the claim element: "transmitting the data packet with the second destination address from the first address translator to a second address translator via the network" the Examiner applies the following: "COL. 9, lines 24-25; Once the first address has been modified or translated to another (2nd) destination address by the 1st gateway 12, the packet is transmitted via the network (col. 7, lines 25-28) to another (2nd) gateway 16." These sections of Gelman are reproduced below, seriatum:

> "The source gateway application 62A receives the packets from the TCP layer 63A and fonvards [forwards] them to the WLP layer 60A, which transmits them over the satellite link 44. On the other end of the satellite link 44, the destination gateway application 62B receives the packets from its WLP layer 60B and forwards them to the destination TCP layer 63B. (Gelman, column 9, lines 22-28)

Appellant has reproduced more than lines 24-25 because they do not comprise a complete sentence by themselves and they offer no understandable meaning by themselves. In looking carefully at complete sentences from lines 22-28, embracing cited lines 24-25, it is apparent that this section merely discloses that the packets are sent from a TCP layer to the WLP layer which transmits the packets over the satellite link. On the other end of the satellite link the received packets in WLP format are forwarded to the destination TCP layer. In other words, the packets go through a *protocol conversion* from TCP to WLP and back to TCP. This is of no relevance to Appellant's claim element with which it is

being associated. Clearly, there is no discussion at this location in the Gelman disclosure of whether or not address information is included with data information in a data packet and therefore this cannot read on "transmitting the data packet with the second destination address from the first address translator to a second address translator via the network" as recited in claim 1. Consider the other cited section:

> Once the connection is established, packets travel back and forth from source to destination or from destination to source, and are translated by the gateways 12,16 for transmission of the wireless link 22. Note that either or both of the source or destination segments 20,24 may comprise a network. For illustration purposes Fig. 1 shows a network 11 in the source segment 20." (Gelman, column 7, lines 23-29)

Again, Appellant has reproduced more than lines 25-28 to capture full sentences which include the cited lines 25-28. This section reinforces the notion of transmission from source to destination (in either direction) via a wireless link. The possibility of a network (e.g. network 11, Fig. 1, Gelman) existing in the source or destination segments is of no consequence. Clearly, there is no discussion of whether or not address information is included with data information in a data packet in this section and, therefore, it cannot read on "transmitting the data packet with the second destination address from the first address translator to a second address translator via the network" as recited in claim 1. As before, this section of Gelman is of no relevance to this claim element with which it is being associated.

But, what leaps from Gelman's disclosure as being very relevant to teaching the opposite of Appellant's claim element "transmitting the data packet with the second destination address from the first address translator to a second address translator via the network" as recited in claim 1, is all of the information presented above about Gelman's disclosure and Gelman's claims. Indeed, Gelman teaches that its data packet ***IS*** void of

address information in a WLP environment, and apparently must be. This is reflected in at least Gelman's TABLE 5. Of course, Gelman's claims further teach the same notion of sending address information in separate packets (messages) from its data packets.

Even if Gelman did not teach the opposite of what is expressed in Appellant's above-quoted claim element, the above sections to which the Examiner has pointed do not disclose or suggest this claim element anyway. Indeed, they are silent on the subject of whether or not addressing information is included with data in the same packet. Thus, one would conclude that Gelman was deficient in this regard even before considering TABLE 5. However, when considering the entire Gelman patent including the information provided in TABLE 5, as well as Gelman's claims, the deficiency of Gelman is even more apparent.

What is perplexing to Appellant about the prosecution of this application to date is that it appears to Appellant that the Examiner chooses to view Gelman's full disclosure including information of TABLE 5 as being merely *extra information?* Appellant has clearly explained the fundamental difference between the disclosure of Gelman and Appellant's claims to the Examiner. For example, this was done in the last amendment filed on June 6, 2006. But, as expressed in the Last Office Action, it seems that the Examiner either chooses to ignore, or blindly disagree with, Appellant's explanation.

For example, in the Last Office Action, "Response to Arguments" section, pages 15-16, the Examiner says that Gelman column 22 (TABLE 5) merely discusses different types of messages being sent, but she does not address what TABLE 5 says is in, or not in, each of the messages. Furthermore, the Examiner suggests that this section of Gelman "does not relate to the claimed invention because they [the messages] are extra

information concerning Gelman's invention." But this "extra information" as characterized by the Examiner, is absolutely germane to Gelman's invention. Indeed, TABLE 5 helps to explain how its invention actually works and operates at the level of detail needed for one to make a correct decision about whether or not Gelman discloses Appellant's claimed subject matter. As shown above, Gelman fails to show that its data packet and its addressing information are contained in the same packet (or message) which, therefore, prevents Gelman from reading on Appellant's claims. In fact, Gelman shows the opposite. The embodiment of Gelman's disclosed invention relies on WLP and, because of the inherent protocol translation constraint in Gelman, from TCP to WLP and vice-versa, the address information is stripped away and sent only with the CONNECT message and not with the DATA message. Accordingly, Gelman does not read-on Appellant's independent claim 1 for these reasons, as detailed above.

In the interest of completeness of discussion of claim 1, Appellant refers back to page 4 of the Last Office Action and to its commentary on "receiving in the second address translator the data packet with the second destination address transmitted via the network" in Appellant's claim 1. The Examiner cites the following sections of Gelman against that claim element: column 4, lines 46-51; column 10, lines 9-13; and column 7, lines 20-21:

> A second protocol translator on the second gateway receives packets via the second communications session and sends them on the third communications session. Preferably, on the second communications session, the second protocol translator receives the original addressing information of the first and second end-users. (Gelman, column 4, lines 46-51)

This section is silent on whether or not address information is included with the data packet in the transmission from the first address translator to the second address

translator. It says that the original addressing information of the first and second end users (users at source node 10 and destination node 18) is transmitted on the second communications session. The second communications session is the WLP connection, (*see*, Gelman, column 4, lines 3-4, where it says that the second protocol is used during the second communications session; the second protocol is WLP). The third communication session is TCP/IP (*see* Gelman, column 4, lines 5-9 where it says that the first protocol is used for the third communication session; the first protocol is TCP/IP) Again, at least TABLE 5 shows the reality of the content of these packets when transmitted under WLP. This section does not disclose or suggest "receiving in the second address translator the data packet with the second destination address transmitted via the network" as recited in Appellant's claim 1. Consider the next section:

> Referring back to FIG. 2, when the destination gateway 16 receives a packet from the satellite link 22 and forwards the packet to its intended destination 18, the forwarded packet at first bears as its source socket or addressing information the address of the destination gateway 16. (Gelman, column 10, lines 9-13)

This section is silent on whether or not address information is included with the data packet during the transmission from a first address translator (allegedly Gelman's source gateway) to a second address translator (allegedly Gelman's destination gateway). The addressing information mentioned in the above section refers to transmission in the destination segment 24 between destination gateway 16 and destination node 18 (*See* Fig. 2, Gelman). Again, at least TABLE 5 shows the reality of the content of these packets. This section does not disclose or suggest "receiving in the second address translator the data packet with the second destination address transmitted via the network" as recited in Appellant's claim 1. Consider the last section:

> The destination gateway converts the packet back to TCP and forwards the packet to the destination node 18 over the destination segment 24. (Gelman, column 7, lines 20-21)

This section is silent on whether or not address information is included with the data packet and is discussing the activity during destination segment 24 in Gelman. Thus, this section does not disclose or suggest: "receiving in the second address translator the data packet with the second destination address transmitted via the network" because it doesn't discuss receiving a data packet with the second destination address into Gelman's destination gateway. Again, at least TABLE 5 shows the reality of the content of these packets.

In view of the above analysis of the Last Office Action vis-à-vis claim 1, Appellant submits that its rejection of claim 1 under 35 U.S.C. § 102(e) as being anticipated by Gelman is unjustified and, in view of that and all of the other evidence presented above, the Honorable Board should REVERSE the rejection of claim 1.

The Examiner's reading of Gelman in the Last Office Action against similar limitation(s) in the other independent claims: 11, 16, 21, 26, 31 and 32, is similar or identical to that given above. Appellant shall provide only the claim element(s) and the citations for each as a convenient reference for the Honorable Board, because all of the citations are irrelevant for reasons similar to those given above - none address the issue of transmitting a data packet from a first translator (allegedly Gelman's source gateway) to a second translator (allegedly, Gelman's destination gateway) with address information included in the data packet.

- Claim 11: Last Office Action, page 6: "transmitting the data packet with the second destination address from the first address translator to a second

address translator via the network." Citations: col. 4, lines 46-51; col. 10, lines 9-11; col. 9, lines 24-25.

- Claim 16: Last Office Action, page 8: "transmitting the data packet with the second destination address from the first address translator to a second address translator." Citations: col. 9, lines 24-25; col. 7, lines 25-28.
- Claim 21: Last Office Action, page 9: "receive in a second address translator from a first address translator a data packet including a first destination address, the first destination address representing mapped destination information." (The Last Office Action misquotes this claim element) Citations: col. 3, lines 49-54; col. 9, lines 21-26; col. 7, lines 14-15.
- Claim 26: Last Office Action, page 10: "receiving from a first address translator into a second address translator a data packet including a first destination address" Citations: col 3, lines 49-54; col. 9, lines 21-26; col. 7, lines 14-15.
- Claim 31: Last Office Action, page 12: "means for transmitting the data packet with the second destination address from the first address translator to a second address translator via the network." Citations: col. 9, lines 24-25; col 7, lines 25-28. "means for translating the second destination address back to the first destination address in the second address translator." Citations: col. 4, lines 46-51; col. 10, lines 9-13; col. 7, lines 20-21.

- Claim 32: Last Office Action, page 13: "transmit the data packet with the second destination address via the network to a second address translator." Citations: col. 9, lines 24-25; col. 7, lines 25-28; and col 7, lines 20-21. "receive the data packet with the second destination address transmitted via the network." Citations: col. 4, lines 46-51 and col. 10, lines 9-13.

As previously noted, all of the citations are irrelevant for reasons similar to those given above - none address the issue of transmitting a data packet from a first translator (allegedly Gelman's source gateway) to a second translator (allegedly, Gelman's destination gateway) with address information included in the data packet.

CONCLUSION

In view of the foregoing arguments and explanations, Appellant respectfully submits that the pending claims are novel over the cited reference. The Examiner's rejection of claims 1-33 is improper because the prior art of record does not teach or suggest each and every element in each of claims 1-33. Appellant again[1] respectfully requests that the Honorable Board REVERSE the rejection of pending claims 1-33.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2347 and please credit any excess fees to such deposit account.

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1 A final rejection of this application under 35 U.S.C § 102 on different art was previously appealed which resulted in a re-opening of prosecution in this application at that time.

IX. CLAIMS APPENDIX

1. In a network including at least one server for communicating with at least one client, a method comprising:

receiving in a first address translator a data packet from a client, the data packet including a first destination address;

changing the first destination address to a second destination address in the first address translator;

transmitting the data packet with the second destination address from the first address translator to a second address translator via the network;

receiving in the second address translator the data packet with the second destination address transmitted via the network;

translating the second destination address back to the first destination address in the second address translator; and

forwarding the data packet from the second address translator to the server using the first destination address.

2. The method of claim 1, further comprising:

encrypting the second destination address before transmitting the data packet.

3. The method of claim 2, further comprising:

decrypting the second destination address before translating the second destination address.

4. The method of claim 1, wherein the changing includes:

mapping the first destination address to the second destination address using a mapping algorithm.

5. The method of claim 1, wherein the first destination address includes first port information associated with a port on the server and the changing includes:

mapping the first port information to second port information.

6. The method of claim 5, wherein the translating includes:

translating the second port information back to the first port information.

7. The method of claim 1, further comprising:

determining whether the first destination address is included in a set of predetermined addresses before changing the first destination address.

8. The method of claim 7, further comprising

determining whether the second destination address is included in a set of predetermined addresses before translating the second destination address.

9. The method of claim 1, further comprising:

determining whether to change the first destination address based on a current time and whether the first destination address is in a set of predetermined addresses.

10. The method of claim 9, further comprising:

determining whether to translate the second destination address based on the time and whether the second destination address is in a set of predetermined address.

11. A system for mapping destination information, comprising:

a memory configured to store a mapping algorithm; and

a processor configured to:

receive in a first address translator a data packet including a first destination address, the first destination address representing a real destination address,

change the first destination address to a second destination address in the first address translator using the mapping algorithm, and

transmit the data packet with the second destination address to a second address translator.

12. The system of claim 11, wherein the processor is further configured to:

encrypt the second destination address before transmitting the data packet.

13. The system of claim 11, wherein the data packet includes first port information associated with a server, wherein the processor is further configured to:

map the first port information to second port information using the mapping algorithm.

14. The system of claim 11, wherein the processor is further configured to:

determine whether the first destination address is included in a set of predetermined addresses before changing the first destination address.

15. The system of claim 11, wherein the processor is further configured to:

determine whether to change the first destination address based on a current time and whether the first destination address is in a set of predetermined addresses.

16. A computer-readable medium having stored thereon a plurality of sequences of instructions, said instructions including sequences of instructions which, when executed by a processor, cause said processor to perform the steps of:

receiving in a first address translator a data packet including a first destination address, the first destination address representing a real destination address;

changing the first destination address to a second destination address in the first address translator using a mapping algorithm; and

transmitting the data packet with the second destination address from the first address translator to a second address translator.

17. The computer-readable medium of claim 16, including instructions for causing said processor to perform the further step of:

encrypting the second destination address before transmitting the data packet.

18. The computer-readable medium of claim 16, wherein the first destination address includes first port information associated with a port on a server and the changing includes:

mapping the first port information to second port information.

19. The computer-readable medium of claim 16, including instructions for causing said processor to perform the further step of:

determining whether the first destination address is included in a set of predetermined addresses before changing the first destination address.

20. The computer-readable medium of claim 16, including instructions for causing said processor to perform the further step of:

determining whether to change the first destination address based on the time and whether the first destination address is in a set of predetermined addresses.

21. A system for mapping destination information, comprising:

a memory configured to store a translation algorithm; and

a processor configured to:

receive in a second address translator from a first address translator a data packet including a first destination address, the first destination address representing mapped destination address information,

translate in the second address translator the first destination address to a second destination address using the translation algorithm, the second destination address representing a real destination address, and

forward the data packet from the second address translator using the second destination address.

22. The system of claim 21, the mapped destination address information being encrypted, wherein the processor is further configured to:

decrypt the mapped destination address information concurrently with the translating.

23. The system of claim 21, wherein the first destination address includes first port information representing mapped port information, wherein the processor is configured to:

translate the first port information to second port information, the second port information representing real port information.

24. The system of claim 21, wherein the processor is further configured to:

determine whether the first destination address is included in a set of predetermined addresses before translating the first destination address.

25. The system of claim 21, wherein the processor is further configured to:

determine whether to translate the first destination address based on a current time and whether the first destination address is in a set of predetermined addresses.

26. A computer-readable medium having stored thereon a plurality of sequences of instructions, said instructions including sequences of instructions which, when executed by a processor, cause said processor to perform the steps of:

receiving from a first address translator into a second address translator a data packet including a first destination address, the first destination address representing a mapped destination address;

translating the first destination address to a second destination address in the second address translator using a translation algorithm, the second destination address representing a real destination address; and

forwarding the data packet from the second address translator using the second destination address.

27. The computer-readable medium of claim 26, wherein the data packet comprises encrypted information, the computer-readable medium including instructions for causing said processor to perform the further step of:

decrypting the encrypted information before translating the data packet.

28. The computer-readable medium of claim 26, wherein the first destination address includes first port information representing mapped port information, wherein the translating includes:

translating the first port information to second port information, the second port information representing real port information.

29. The computer-readable medium of claim 26, including instructions for causing said processor to perform the further step of:

determining whether the first destination address is included in a set of predetermined addresses before translating the first destination address.

30. The computer-readable medium of claim 26, including instructions for causing said processor to perform the further step of:

determining whether to translate the first destination address based on a current time and whether the first destination address is in a set of predetermined addresses.

31. A system for mapping and translating destination information in a network including at least one server for communicating with a plurality of client workstations, comprising:

means for receiving from one of the client workstations a data packet including a first destination address;

means for changing the first destination address to a second destination address in a first address translator;

means for transmitting the data packet with the second destination address from the first address translator to a second address translator via the network;

means for receiving in the second address translator the data packet with the second destination address transmitted via the network;

means for translating the second destination address back to the first destination address in the second address translator; and

means for forwarding the data packet from the second address translator to the server using the first destination address.

32. In a network including at least one client and at least one server, a system comprising:

a first address translator configured to:

receive a data packet from a client, the data packet including a first destination address wherein the first destination address represents a real destination address,

change the first destination address to a second destination address, and

transmit the data packet with the second destination address via the network to a second address translator; and

the second address translator configured to:

receive the data packet with the second destination address transmitted via the network,

translate the second destination address back to the first destination address, and

forward the data packet to the server using the first destination address.

33. The system of claim 32 further comprising:

the second address translator further configured to:

receive a reply data packet from the server, the reply data packet including a third destination address wherein the third destination address represents a real destination address,

change the third destination address to a fourth destination address, and

transmit the reply data packet with the fourth destination address via the network; and

the first address translator further configured to:

receive the reply data packet transmitted via the network,

translate the fourth destination address back to the third destination address, and

forward the reply data packet to the client using the third destination address.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.